

AMENDMENTS TO THE CLAIMS

This Listing of Claims will replace all prior versions and listings of claims in this application.

Listing of Claims:

1.-28. (Cancelled)

29. (Currently Amended) A cation electrodeposition method which comprises conducting surface treatment on a metal base material for automobile body and automobile parts by a chemical conversion coating agent to form a chemical conversion coat, then washing the metal base material with water without drying, and then conducting cation electrodeposition coating,

wherein the chemical conversion coating agent comprises: at least one member selected from the group consisting of zirconium, titanium and hafnium; and fluorine; and at least one member selected from the group consisting of amino group-containing silane coupling agent, hydrolysates thereof and polymers thereof; and having substantially no phosphate ion,

said chemical conversion coat is formed via deposition of at least one member selected from the group consisting of hydroxide or oxide of zirconium, titanium and hafnium, and
said metal base material comprises at least iron based material.

30. (Previously Presented) The cation electrodeposition method according to claim 29, wherein the chemical conversion coating agent contains 1 to 5,000 ppm of at least one member of a chemical conversion reaction accelerator selected from the group consisting of nitrite ion, nitro group-containing compounds, hydroxylamine sulfate, persulfate ion, sulfite ion, hyposulfite ion, peroxides, iron (III) ion, citric acid iron compounds, bromate ion, perchlorate ion, chlorate ion, chlorite ion, ascorbic acid, citric acid, tartaric acid, malonic acid, succinic acid and salts thereof.

31. (Previously Presented) The cation electrodeposition method according to claim 29, wherein the amino group-containing silane coupling agent is selected from the group consisting of N-2-(aminoethyl)-3-aminopropyltrimethoxysilane, and 3-aminopropyltrimethoxysilane.

32. (Previously Presented) The cation electrodeposition method according to claim 29, wherein the at least one member selected from the group consisting of amino group-containing silane coupling agent, hydrolysates thereof and polymers thereof, has a content of 5 to 5000 ppm as a concentration of solid matter.

33. (Previously Presented) The cation electrodeposition method according to claim 29, wherein the at least one member selected from the group consisting of amino group-containing silane coupling agent, hydrolysates thereof and polymers thereof, has a content of 50 to 5000 ppm as a concentration of solid matter.

34. (Previously Presented) The cation electrodeposition method according to claim 29, wherein the chemical conversion coating agent contains polymers of an amino group-containing silane coupling agent.

35. (Previously Presented) The cation electrodeposition method according to claim 29, wherein the at least one member selected from the group consisting of zirconium, titanium and hafnium, has a content of 20 to 10,000 ppm on a basis of metal.

36. (Previously Presented) The cation electrodeposition method according to claim 29, wherein the at least one member selected from the group consisting of zirconium, titanium and hafnium, has a content of 50 to 2,000 ppm on a basis of metal.

37. (Previously Presented) The cation electrodeposition method according to claim 32, wherein the at least one member selected from the group consisting of zirconium, titanium and hafnium, has a content of 50 to 2,000 ppm on a basis of metal.

38. (Previously Presented) The cation electrodeposition method according to claim 33, wherein the at least one member selected from the group consisting of zirconium, titanium and hafnium, has a content of 50 to 2,000 ppm on a basis of metal.

39. (Previously Presented) The cation electrodeposition method according to claim 34, wherein the at least one member selected from the group consisting of zirconium, titanium and hafnium, has a content of 50 to 2,000 ppm on a basis of metal.

40. (Previously Presented) The cation electrodeposition method according to claim 29, wherein the chemical conversion coating agent has a pH of 1.5 to 6.5.

41. (Previously Presented) The cation electrodeposition method according to claim 37, wherein the chemical conversion coating agent has a pH of 1.5 to 6.5.

42. (Previously Presented) The cation electrodeposition method according to claim 38, wherein the chemical conversion coating agent has a pH of 1.5 to 6.5.

43. (Previously Presented) The cation electrodeposition method according to claim 39, wherein the chemical conversion coating agent has a pH of 1.5 to 6.5.

44. (Previously Presented) The cation electrodeposition method according to claim 29, wherein the chemical conversion coating agent contains at least one adhesion and corrosion resistance imparting agent selected from the group consisting of magnesium ion, zinc ion, calcium ion, aluminum ion, gallium ion, indium ion, and copper ion.

45. (Currently Amended) The cation electrodeposition method according to claim 44 38, wherein the adhesion and corrosion resistance imparting agent is selected from the group consisting of aluminum ion and copper ion.

46. (Currently Amended) The cation electrodeposition method according to claim 44 38, wherein the adhesion and corrosion resistance imparting agent is selected from the group consisting of magnesium ion and zinc ion.

47. (Previously Presented) The cation electrodeposition method according to claim 29, wherein the water is ion exchange water.

48. (Previously Presented) The cation electrodeposition method according to claim 29, wherein the metal base material comprises a plurality of metal materials selected from iron material, aluminum material and zinc material.